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ABSTRACT

This paper furnishes a framework that allows the local audiovisual administrator to develop a management system necessary for the instructional support of teaching through modern media and educational technology. The structure of this framework rests on organizational patterns which are explained in four categories: complete decentralization, centralization of library materials and services only, centralization of separate library and audiovisual services, and centralization of school media center services. Information is provided on the selection of media software and costs for commercially produced audiovisual media, as well as 1978 cost estimates for such audiovisual hardware as projectors, recorders, video cameras, and monitors. Inventory control procedures, the purchase and maintenance of audiovisual equipment, and the identification of media services external to the school are also covered. (RAO)

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February 15, 1978

CCRC REPORT

MANAGEMENT OF AUDIOVISUAL MEDIA SERVICES

OUTLINE

PART II. PRACTICAL MANAGEMENT METHODS

A. Organizational Patterns
B. Budget Estimation
C. Inventory Control
D. Software Selection
E. Purchase and Maintenance of Equipment
F. Media Services from Outside the School
G. Summary of Principles

MANAGEMENT OF AUDIO-VISUAL MEDIA SERVICES

Part II. Practical Management Methods

Vol. 2 No. 4

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"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This report completes the two-part technical paper.

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MANAGEMENT OF AUDIOVISUAL
MEDIA SERVICES

PART II

PRACTICAL MANAGEMENT METHODS

For years, the teacher-textbook-blackboard trio has been central to the teaching process, with films, filmstrips, records, audio and video tapes, and other media considered to be supplementary "aids." Today, excellent software is available in a wide variety of formats covering all aspects of the curriculum. It has been well documented that audio and visual materials can be extremely effective teaching tools. One must conclude that local educators should be provided the opportunity to teach with all kinds of materials that constitute an integral part of the curriculum, and not be limited to a choice of textbooks with supplementary "aids."

If modern media and their accompanying hardware are to become an integral part of the learning process rather than just "aids," a management system has to be planned and implemented that will insure efficient accessability to a wide variety of materials and devices when and where needed. Although selected responsibilities may be delegated, the school administrator is primarily responsible for the management of audiovisual services. Selection, organization, distribution, budgeting, and planning are the primary aspects of such a management system. Instructional usage doubtless remains the most important aspect of the entire media program; however, it is not the purpose of this paper to explore teaching and learning techniques, but rather to furnish a framework that will allow the local administrator to develop a system necessary for the instructional support of good teaching through modern media and technology.

A. Organizational Patterns

The several varying patterns for supplying the individual school with educational media services reflect many understandable differences in philosophy and economic support and are also affected by the restraining forces of tradition. Generally, most of the patterns may be subsumed in one or another of four categories and in a continuum of responsibility, as follows:

Complete decentralization, with no central instructional materials collection and no specialized staff. The school principal or clerk provides what assistance he can for the program. Chief responsibility for obtaining materials rests with individual teachers.

Centralization of library materials and services only, with a central book-library in the school that is supervised by a professional trained librarian or teacher-librarian. Non-book (audiovisual) materials are handled by individual teachers.

Centralization of separate library and audiovisual services, often with a separate professionally trained librarian or teacher-librarian responsible for book collections. A second interested or professionally trained teacher handles the school's audiovisual materials collection and services, frequently on a part-time basis.

Centralization of school media-center services, with fully integrated book and audiovisual or other nonbook facilities and resources. Stress is placed upon applications of instructional technology and systematic, insightful uses of materials as basic, as well as supplementary elements of the instructional process. The center's professional staff is trained in the administration and utilization of the full range of media and may, in addition, be highly specialized in one or more aspects of the media field. (Brown: p. 36)

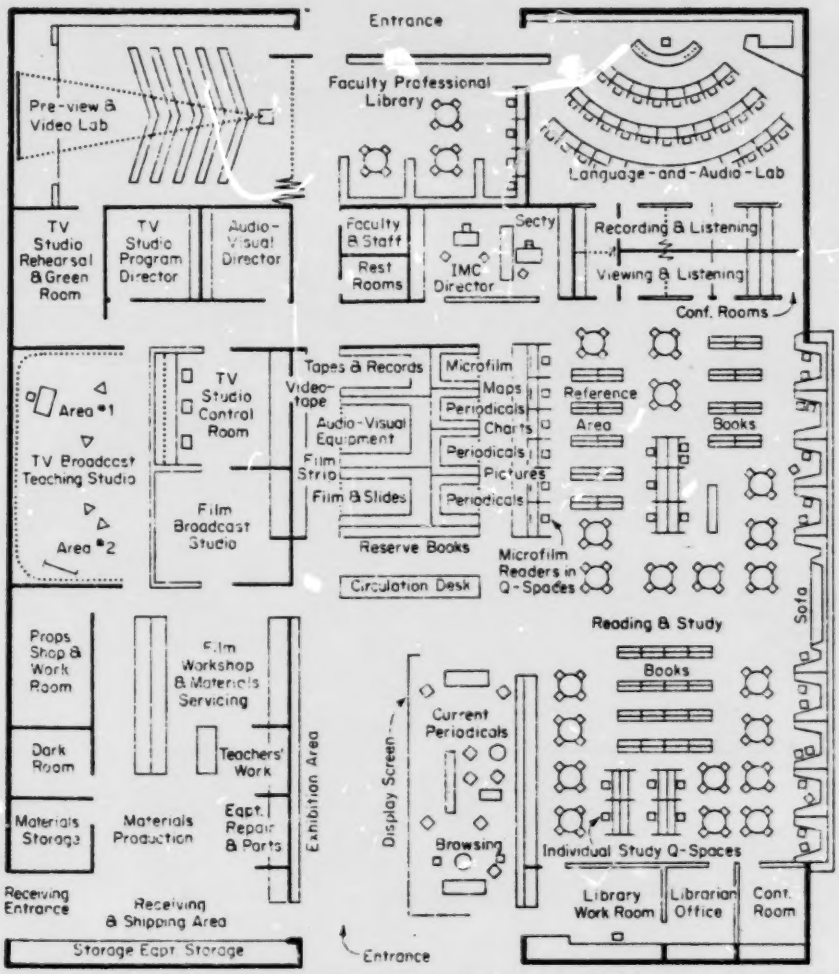
Despite the apparent lack of uniformity of administrative organization for media services reflected in the above descriptions, numerous signs now point to growing acceptance of the concept of a comprehensive single-school educational media center. Such a center is conceived to contain in one organization the services students and teachers formerly associated with a separate school library, the audiovisual service, the textbook depository, a duplicating facility, a photography laboratory, a language laboratory, a listening laboratory, a programmed learning laboratory, and perhaps other facilities as well.

It is preferable to combine all storing, cataloging, inventorying, and distribution of all learning media in one physically coordinated unit to facilitate its efficient use by teachers and students. The center should be centrally located. The center facilities should be sufficiently large and flexible and capable of being rearranged or expanded to suit changing conditions and future requirements or to permit multiple use of space. Chart I represents a model floor plan for a high school of 1000 to 2000 students. This may seem to be an ideal facility which is beyond the grasp of many central Texas schools; however, if one uses learning efficiency as the central criterion by which to judge instructional programs, good use of educational technology can actually result in a savings of funds as well as time.

B. Budget Estimation

Among the important considerations in selecting media software is cost. Below are listed the more common forms of audiovisual media, and the approximate cost of each. There is a good deal of uniformity among producers in pricing software. The competition for the educational market is so keen that producers cannot afford to price themselves out of it. Keep in mind that these figures are subject to inflation, and represent only the status as of January 1978. Multiples may be used for programs longer than those listed.

MEDIA	APPROXIMATE COST
16mm Motion Pictures	$150.00 per 11 minutes-color 90.00 per 11 minutes-black & white
35mm Filmstrip (silent)	7.00 - 10.00
35mm Filmstrip w/ record	25.00 (for 12 min. program)
35mm Filmstrip w/ cassette tape	25.00 (for 12 min. program)



This plan for an educational media center for a high school of 1,000 to 2,000 students includes space for the variety of activities required to be conducted there. (From Amo De-Bernardis et al., *Planning Schools for New Media.*)

Chart I. Media and Equipment Center Floor Plan

MEDIA	APPROXIMATE COST
35mm slides (commercially prepared)	$ 1.25 each
35mm slide sets w/ Sound-Tape	35.00-50.00 (for 12 min. program)
Audio tape cassette programs	10.00-15.00 (for 20 min. program)
Audio "reel" tape programs	15.00-20.00 (for 20 min. program)
Overhead Projection Transparencies	1.00-5.00 each
8mm (Motion Picture) Film Loops	25.00 (per 5 min. color-no sound)
Videotape cassettes (U-matic)	110.00 (per 11 min. program)
Reel videotape program	100.00 (per 11 min. program)

These prices are for commercially produced media. Prices on other items vary so widely that it is not possible to list even approximate unit prices. Also available, of course, are free materials or one may produce his own material locally.

A good source of information on free materials is the indexes produced by Educator's Progress Service. An EPS index is available in each subject area, as well as for each media format. These are suitable tools for any library.

Information on commercial media is available from individual producers and their catalogs. A more comprehensive list is published by the National Information Center for Educational Media (NICEM). NICEM Indexes list films, filmstrips, video, and other material by subject. Included is information on the price, source, and content of all commercially produced media. The references are available in Regional Service Centers, University Libraries, and most larger school districts.

Local production of media is a topic that is beyond the scope of this paper; however, we can say generally that the cost of high quality locally produced media considering staff time, materials, and production equipment usually exceeds vastly the cost of commercial materials. Technical quality also will usually be inferior. Locally produced media is suitable in cases where there are unique needs which cannot be met with commercial materials.

The quantity of media and format must be determined by local needs. The Texas Education Agency published state accreditation standards are generally non-specific regarding audiovisual media. A useful TEA publication is Guidelines for the Development of Campus Learning Resource Centers (TEA Bulletin 748). This suggests general standards for media software as

well as hardware. The highest levels for a media program are found in the American Library Association and Association for Educational Communications and Technology's joint publication, Media Programs District and School. Prices vary widely between brands and among the various options.

The following cost estimates can be offered for the most common audio-visual equipment. These general guidelines are probable average prices as of January, 1978

DEVICE	PRICE RANGE
16mm Motion Picture Projector - Manual Thread	$600-900
16mm Motion Picture Projector - Autoload	700-1000
8mm Projector - no sound	150-500
8mm Projector - w/ sound	180-500
8mm Loop Projector - no sound	125-200
35mm Slide Projector - Manual	50-100
35mm Slide Projector - Automatic	140-300
35mm Filmstrip Projector - Manual	50-100
35mm Filmstrip Projector - Automatic	100-200
35mm Filmstrip Projector w/ sound	250-375
35mm Slide Projector w/ sound	275 and up
Audio Tape Recorder - Reed type - Monorial	150-400
Audio Tape Recorder - Cassette - Monorial	40-200
Video Tape Recorders - 1/2" Reel type (B & W)	850-2000
Video Tape Recorders - 1/2" Reel type (Color)	2000-3000
Video Tape Recorders - UMATIC Cassette (Color)	1000-3000
Video Camera - Portable, Black & White	300-600
Video Camera - Portable, color	3000 and up
TV Receiver/Monitors - B&W - 25'	150-300
TV Receiver/Monitors - Color - 25'	430-800

DEVICE	PRICE RANGE
Overhead Projector	125-300
Opaque Projector	250-600
Record Player - classroom model	50-150

Source: Compiled from the 1977-78 Audio Visual Equipment Directory.

Projection lamps are coded with three letter codes such as CYA or DAK to simplify ordering. The life expectancy of lamps is given on its container in hours. To know how many spare lamps should be kept on hand, estimate how many hours each piece of equipment is likely to be used.

A basic reference for audiovisual equipment is the Audio Visual Equipment Directory published annually by National Audiovisual Association (NAVA). This lists all makes and models of all types of classroom equipment with pictures, complete specifications, and suggested retail prices. The reference is non-evaluative.

Another source of information is the Educational Products Information Exchange (EPIE). This is a consumers' union concerned with educational products. EPIE publishes monthly newsletters and detailed quarterly reports on materials as well as equipment.

C. Inventory Control

If materials are to be shelved according to accession number, the accession list itself is subdivided immediately according to categories of materials and used thereafter as a shelf list. In such cases, each sublist represents a numerical listing of items in the order of their receipt and in accordance with their actual shelf positions. Filmstrips 1, 2, and 3, for example, will be marked with the call numbers FS-1, FS-2, and FS-3, and placed in the filmstrip drawer in those positions.

If browsing is permitted, a subject arrangement (generally by types of materials) may be preferred. If there can be no browsing or if housing is fixed and interfiling and shifting are difficult (e.g. filmstrips are in numbered drawers), an accession-number shelving system is generally preferred.

If subject classification is adopted, items on the same topic (regardless of format) are brought together and placed according to the Dewey decimal system, Library of Congress system, or other appropriate classification scheme. For example, with the Dewey decimal plan, all United States history items would be in 973. The difficulty of filing several different kinds of materials (ranging from books of fairly uniform size to four sizes of films, bulky kits in various shapes, and models) is quite obvious and helps to explain the usual preference for shelving separately by format type.

The Dewey decimal classification system, most widely used in school libraries and educational media centers, was developed in the last century by Melvil Dewey. This system consists essentially of ten main classes, by hundreds, from 000-999. The general classes themselves are further subdivided, using a decimal system, to identify finer and finer gradations of the same general subject. As is the case with all classification systems, the constantly enlarging scope of human knowledge presents complications. Dewey's Abridged Decimal Classification and Relative Index is useful in developing a suitable classification plan and procedure. Part I is arranged by classification entries; Part II is a full alphabetical index. Prefix letters (MP for films, FS for filmstrips, and others) are sometimes added to classification numbers to identify media formats.

The function of a catalog in the media center is to aid users to interpret center holdings and identify their location. To accomplish this, it is essential to (1) anticipate the most likely needs and purposes of persons who consult catalogs or descriptive lists, (2) develop catalog card sets indicating assigned subject, title, author, or other appropriate headings as well as essential technical data about each item, and (3) provide, if feasible, further data on item content and its possible contributions to the achievement of specific instructional objectives. This last process, known as "descriptive cataloging," especially requires professional insight and a general knowledge of the educational program. Detailed information on organization and cataloging of materials is the domain of the professional Learning Resources Specialist.

It is a good idea to inventory equipment by recording its serial number, and make and model. You may also wish to designate your own number as you inventory to simplify checking equipment in and out. Keep the inventory list updated as you add equipment. It will help in obtaining warranty service, replacing lamps, and identifying your equipment in the event of theft. Equipment, when it is obtained, should be marked as property of the school with an engraving tool.

Equipment which is to be shared or moved about should have a check out system. This can take many forms. A "library card" type check out system proves to be one of the simplest.

D. Software Selection

It is always the instructional objective, the learning, and the learner which are the prime considerations in choosing any media. One must first determine the instructional need and then select the form that will best meet the need. Chart II from Boucher, p. 11, presents in summary form the capabilities of the various media.

E. Purchase and Maintenance of Equipment

Even more frustrating than audiovisual software is the hardware associated with it. Devices vary widely in all respects--price, quality, flexibility. Many machines are not compatable with other makes or models. To make matters worse, all hardware is continually being updated to the point that all machines are virtually obsolete when they are purchased. Decisions on audiovisual equipment must be made locally to fit needs. The following criteria should be considered in determining whether or not the device matches the need:

MEDIA CAPABILITES MATRIX

	PRESENTATION														STUDENT RESPONSE						INSTRUCTIONAL STRATEGY							
	VISUAL								AUDITORY		TACTILE				VERBAL/ SYMBOLIC			PERFORMANCE			FEEDBACK			INTERACTION				
	PLANE (2D)	SOLID (3D)	LOCALITY (3D)	MOTION, FULL	MOTION, CYCLICAL	MOTION, LTD. EXCUR.	MOTION, CONCEPTUAL	COLOR	QUALITY	LOCALITY	SIZE/SHAPE/TEXTURE	TEMPERATURE	MOTION	KINESTHETIC CUES	SELECTION	SPECIFIC	CREATED	INDICATION	MANIPULATION	GROSS BODY MOVEMENT	INFORMATIVE	EVALUATIVE	CORRECTIVE	LINEAR	BRANCHING	ADAPTIVE	REPETITIVE
OVERHEAD TRANSPARENCIES	S	0	0	0	b	c	a	S	c	0	[illegible]	0	0	0	Z	Z	Z	Z	0	0	S	c	c	c	c	c	S
AUDIO TAPES	0	0	0	0	0	0	0	0	S	S*	0	0	0	0	Y*	Z	Z	0	0	0	S	S*	S*	c	S*	[illegible]	S*
2 X 2 SLIDES	S	0	0	0	a	c	f	S	d	0	0	0	0	0	Y*	Z	Z	Z	0	0	S	g	g	c	g*	c	S
SOUND SLIDES	S	0	0	0	a	c	f	S	S	0	0	0	0	0	Y*	Z	Z	Z	0	0	S	g*	g*	c	g*	0	S*
FILMSTRIPS	S	0	0	0	S*	S*	f	S	d	0	0	0	0	0	Y*	Z	Z	Z	0	0	S	g	g	c	g*	0	S*
SOUND FILMSTRIPS	S	0	0	S*	S*	S*	f	S	S	0	[illegible]	0	0	0	Y*	Z	Z	Z	0	0	S	c	c	c	0	0	S*
MOTION PICTURES	S	0	0	S	S	S	S	S	d	0	0	0	c	0	Z	Z	Z	Z	0	0	S	c	c	c	0	0	S*
SOUND MOTION PICTURES	S	0	0	S	S	S	S	S	S	0	0	0	0	0	Y*	Z	Z	Z	0	0	S	c	c	c	0	0	S*
MICROFORM	S	0	0	0	0	c	0	S	c	0	0	0	0	0	X*	Z	Z	Z	0	0	S	g	g	c	g*	c	S
TEACHING MACHINES	S	0	0	S*	S*	S*	S*	S*	S*	0	0	0	0	0	X	Z	Z	Z	0	0	S	b*	b*	S	S	0	S*
VIDEO RECORDING	S	0	0	S	S	S	S	S	S	0	0	0	0	0	Z	Z	Z	Z	0	0	S	c	c	c	0	0	S*
LIVE TELEVISION	S	0	0	S	S	S	S	S	S	0	0	0	0	0	Z	Z	Z	Z	0	0	S	c	c	c	0	0	0
SLOW SCAN TV	S	0	0	0	0	c	0	0	S	0	0	0	0	0	Z	Z	Z	Z	0	0	S	c	c	c	0	0	0
PRINTED MATERIAL	S	0	0	0	a	0	a	S	0	0	0	0	0	0	Z	Z	Z	Z	0	0	S	S	S	c	c	0	S
PROGRAMMED TEXT	S	0	0	0	a	0	a	S	0	0	0	0	0	0	X	X	X*	X*	0	0	S	S	S	S	S	0	S*
PAPER SIMULATIONS	S	0	0	0	0	0	0	S	0	0	0	0	0	0	X	Z	Z	X	0	0	S	S	c	S	S	0	0
CHARTS	S	0	0	0	0	c	0	S	c	0	0	0	0	0	Z	Z	Z	Z	0	0	c	c	c	c	c	0	c
DISPLAY BOARDS	S	0	0	0	0	c	0	S	c	0	0	0	0	0	Z	Z	Z	Z	Z	0	c	c	c	c	c	0	S
EC II	S	0	0	0	0	c	0	S	S	0	0	0	0	0	X	X	Z	X	0	0	S	S	c	S	S	c	S
AUDIPOINTER	S	0	0	0	0	S	S	S	S	0	0	0	0	0	X	X	Z	X	0	0	S	S	c	S	0	0	S
CPS 48	S	0	0	S	S	S	S	S	S	0	0	0	0	0	Z	Z	Z	Z	0	0	S	c	c	c	c	c	S
UNIVERSAL PROCESS TRAINER	S	0	0	0	0	S	S	S	c	0	0	0	0	0	0	0	0	X	X	0	S	S	c	c	c	c	S
MODELS MOCKUPS	S	S	S	S*	S*	S*	S*	S*	c	0	S	0	S*	0	0	0	0	Z	Z	Z	c	c	c	c	c	0	S
BACK LIGHTED PANELS	S	a	0	0	S*	S*	S*	S*	c	0	a	0	a	0	0	0	0	X	X	0	S*	S*	c	S	S	0	S
ANIMATED PANELS	S	a	0	0	S*	S*	S*	S*	c	0	a	0	a	0	0	0	0	X	X	0	S*	S*	c	S	S	0	S
SIMULATORS	S	S	S	S*	S*	c	S*	S*	S*	S*	S	S*	S*	S*	0	0	0	X	X	X	S*	S*	c	S	S	S*	S
REALIA	S	S	S	S*	S*	c	S*	S*	S*	S*	S	S*	S*	S*	0	0	0	X	X	X	S*	S*	c	S	S*	c	S
COMPUTER ASSISTED INSTRUCTION	S	0	0	S*	S*	S*	S*	S*	S*	0	0	0	0	0	X	X	Z	X*	0	0	S	S	S	S	S	S	S

KEY

- 0 Not applicable, unsuitable
- S Generally suitable
- a Suitable when combined with *visual motion adapters*
- b Suitable when combined with *visual motion adapters* or projectable working *models*
- c Suitable only when used in conjunction with live instruction
- d Suitable when combined with *audiovisual integrators*
- e May contain certain three dimensional components such as real or oversize operating controls
- f Suitable when combined with *dissolvers*
- g Suitable when used in or combined with *visual random access devices*
- X Contains integrated response control of presentation
- Y Presentation can be controlled by student response systems
- Z Presentation not controlled by response
- * Rating applies only to some devices in this category

Chart II. Media Capabilities Matrix (from Planning Schools for New Media by Amo De Bernardis, et al)

Usefulness. How critical is the contribution of the item to the educational program in which it will be used? Will it be used with sufficient frequency to justify the purchase cost?

Operability. Is the item simple and relatively foolproof to operate? Is it operated much like others of its type, or does it have a number of unique features to confuse inexpert users? Are operating instructions clearly displayed on the equipment and explained in accompanying manuals? Are they complete and easy to follow? If the unit contains automatic operation features, are they dependable and readily used? In such cases, is there provision for manual as well as automatic operation?

Performance Reliability. Will the item perform in accordance with accepted standards of efficiency and quality for its various optical, electronic, mechanical, or other systems? Is the item acceptably versatile (dual-purpose or other capabilities)? Does the item operate at satisfactorily low noise and light-spillage levels? Will it continue to operate over long periods of time without excessive heating or wear? If a projector, does it provide even light distribution and sharp focus on all portions of the screen?

Appearance. Does the item match others with which it will be used? Is it aesthetically pleasing?

Safety. Is the item safe? Does it carry the Underwriter's Laboratory (UL) seal? Are turning gears protected? Is the chassis grounded? Do lenses have limit stops to avoid their being dropped accidentally when fully extended? Is the unit equipped with a three-wire grounding plug? Is it equipped with at least a 5-foot power cord? Are cords permanently attached to avoid possibility of loss? Are plugs designed to avoid the possibility of their being inserted in the wrong position or manner, with possibly disastrous results? Is the item properly balanced to reduce hazards of toppling? Are detachable pieces likely to be lost? Do sharp edges or points present safety hazards? Is the item suitably enclosed in a case or otherwise protected when stored or carried?

Compatibility. Does the item fit in with other equipment already in the collections? Is standardization of brand for the particular item necessary or desirable? Is there a sufficiently extensive and varied collection of instructional resources to be used with it or will it require special purchase of materials made for it? Are its frequently replaced parts (projection bulbs, exciter lamps, tubes, fuses, etc.) interchangeable with other units in existing equipment collections?

Sturdiness. Is the item well-built, of sufficiently strong materials? Are fittings (handles, knobs, dials, switches) of top quality? If plastics are employed in construction, will they withstand the kinds of normal usage expected for the item? Will this plastic deteriorate rapidly?

Repairability. Is the item capable of being repaired without undue expense for parts, labor, or transportation (back to the factory, for example)? May repair parts be purchased at a fair price (including transportation)?

Portability (if required). Is the item sufficiently light to be lifted or carried by intended users (teachers or students, in particular)? Is it so large (even if relatively light) that it is unnecessarily awkward to carry?

Reputation. Does the manufacturer have an established reputation for quality and utility? Is the dealer's reputation similarly established? Is it likely that claims with regard to price, delivery, warranty, or similar matters will continue to be honored as long as the equipment is in service?

Cost. Is the price of the item in line with those of competitive makes of the same type or quality? If higher, is the extra amount justified by superior design, performance, construction, or other features? If trade-ins are involved, are they related realistically to prices of new items?

Warranty. Does the warranty specify the number of months of free service (including replacement of defective parts or, when justified, of entire items) provided for the item? Is the warranty fair?

Service. What additional service (beyond the warranty) is offered? Does the dealer agree to unpack and test a newly received item? Will he or the manufacturer provide in-service training in helping teachers or students learn to operate it?

Obsolescence. Is the item of the type that will rapidly become obsolescent and thus require replacing? Does this possibility suggest the wisdom of obtaining it on a lease rather than outright purchase basis?

Equipment once purchased, must be maintained and cared for to provide good long-term service. A suitable policy is to provide for an annual cleaning, lubricating, and light repair. Minor repairs requiring only minimum skill and tools can be done within the school. Kits for minor repair and upkeep can be purchased from audiovisual dealers. An inventory of spare lamps should be kept on hand. This is made simpler by purchasing types of AV equipment which are from the same line, rather than obtaining a "hodge podge" of all makes and models.

Dust is a major enemy of all AV equipment. Keeping a plastic dust cover over machines when not in use will be a simple, but effective, precaution.

F. Media Services Available from Outside the School

The modern school does not exist in a vacuum in any respect. This observation is no less true with audiovisual media. A few words about these resources here seems appropriate.

The school district is likely to maintain a collection of shared materials and equipment. It may perform cataloging, equipment repair, TV and other audiovisual production, as well as other services for the district.

The Region XII Education Service Center offers a large educational film library, computer-assisted instruction, in-service training, a special education materials center, reproduction of audio tapes and overhead transparencies, and other media related services. School districts must elect to participate in this service by paying a fee of $1 per average daily attendance. State funds match the money collected by the Center from local fees. Therefore, participation is a good deal for the school, since the Center can spend $2 for each $1 the school could spend on media services. Sharing and co-oping through the Center further facilitate cost efficiency.

The Texas Education Agency, Division of Instructional Resources, provides information, funds special programs, and also facilitates programs with statewide implications. They operate primarily through the Education Service Centers. TEA's Educational Resource Center supplies an audio and video tape library, some development of original materials, and other related services. The TEA services are performed at no charge to local school districts.

The National Audio Visual Center facilitates the sale and use of government produced media. The U. S. Office of Education funds certain innovative media programs.

Professional organizations publish information in the form of journals and other publications. The Texas Association of Educational Technology (TAET), and the dealer's organization, the National Audiovisual Association (NAVA), and the Association for Educational Media and Technology (AEMT), are the major state and national organizations primarily concerned with audiovisual educational media.

G. Summary of Principles

Several guiding principles have been accepted in this report. They are listed below:

*Modern media in all forms, including print, audio, visual, and realia, are essential for an effective learning environment.

*The administrator, or his designee, should accept the responsibility of managing the instructional service.

*There are so many technical advances that few teachers and administrators can know much about all of them: the problem, then, is to provide information to school campuses sufficient to allow teachers to express their instructional resource wants in enlightened terms.

*Teachers cannot be expected to be totally responsible for acquisition, distribution, evaluation, repair, and technical operation of audiovisual hardware.

*An administrator must seek to satisfy these wants in the most effective, yet economical terms.

*The cost of audiovisual materials can be lowered, in certain cases, by cooperative approaches.

*The system should function with decision-responsibility at the lowest possible level; in other words, at the levels where teaching and learning actually occur.

*Any local system should be designed with built-in flexibility to accomodate future change and expansion.

*The audiovisual program should operate as an integral part of the total instructional (or learning) resources program. The preferable coordinating unit is the school Learning Resource Center, directed by a certified Learning Resource specialist.

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